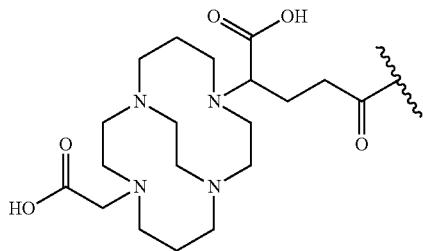


13. The polymer according to claim **8**, wherein the metal chelating group is:



14. The polymer according to claim **8**, wherein the metal chelating complex is bound to a metal ion.

15. The polymer of claim **14**, wherein the metal ion is a radionuclide or radiometal.

16. The polymer of claim **14**, wherein the metal ion is suitable for PET or SPECT imaging.

17. The polymer of claim **14**, wherein the metal chelating complex is bound to a transition metal ion.

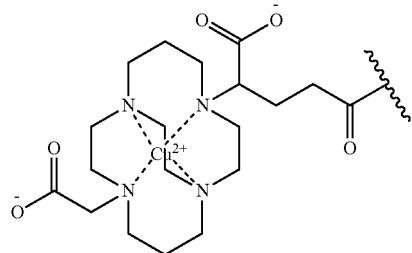
18. The polymer of claim **14**, wherein the metal ion is a copper ion, a gallium ion, a scandium ion, an indium ion, a lutetium ion, a ytterbium ion, a zirconium ion, a bismuth ion, a lead ion, a actinium ion, or a technetium ion.

19. The polymer of claim **18**, wherein the metal ion is an isotope selected from ^{99m}Tc , ^{60}Cu , ^{61}Cu , ^{62}Cu , ^{64}Cu , ^{86}Y , ^{90}Y , ^{89}Zr , ^{44}Sc , ^{47}Sc , ^{66}Ga , ^{67}Ga , ^{68}Ga , ^{111}In , ^{177}Lu , ^{225}Ac , ^{212}Pb , ^{212}Bi , ^{213}Bi , ^{114m}In , ^{114m}In , ^{114}In , ^{186}Re , or ^{188}Re .

20. The polymer of claim **17**, wherein the transition metal is a copper(II) ion.

21. The polymer of claim **20**, wherein the copper(II) ion is a $^{64}\text{Cu}^{2+}$ ion.

22. The polymer of claim **21**, wherein the metal chelating complex is:



23.-164. (canceled)

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